Amendments to the Drawings:

Formal drawings were filed on November 30, 2001, in response to a notice to file missing parts. Upon review of these drawings (in view of the Examiner's objection in paragraph 1 of the office action), several errors have been detected and are now addressed.

Figure 6 is incorrect. A correct Figure 6 is submitted herewith.

The submitted Figure 7 has been improperly labeled as Figure 7. It should have been Figure 8. A corrected Figure 8 is submitted herewith.

A corrected Figure 7 is also being submitted herewith, which corrects the previously filed Figure 6.

Annotated sheets showing changes to Figures 6 and 7 accompany this Amendment, and replacement sheets for Figures 5, 6, 7 and 8 are attached.

The changes made are all consistent with the originally filed informal drawings.

Remarks

This application has been carefully reviewed in view of the Office Action mailed March 16, 2005. A three (3) month extension of time has been requested in which to respond to the action. The specification has been amended to provide the serial numbers of the related applications. The Examiner's objection to the specification on page 1 of the Office Action is noted and has been addressed indirectly, namely, by correcting the drawing submission that was made in error on November 30, 2001 (in response to the notice to file missing parts). In particular, corrected Figures 6-8 are attached hereto. In addition, independent claims 1 and 10-11 have been amended. Reconsideration and favorable action are respectfully requested.

Claims 1 and 4-11 were rejected under 35 U.S.C. § 102(e) as being anticipated by a "divide-and-conquer" algorithm described in paragraph 143 of U.S. Published Application 2004/0078490. While this algorithm bears some superficial similarity to the unification technique of the present invention, the respective goals of the techniques and certain technical aspects are distinguishable. The method of the present invention has a goal of taking given sample data and, in particular, an arbitrary sparse set of IP blocks having associated mapping data, and generating an IP address block map that is an approximation of the sample data. This IP address block map is "consistent" with the arbitrary sparse set of IP blocks having associated mapping data that comprises the "input" to the algorithm. In contrast, the "divide-and-conquer" algorithm has a completely different goal; that technique probes certain selected IP addresses to obtain precise information (usually along the edges of a given IP block) and then uses that information to produce an exact block structure. Thus, in Anderson, the "input" to the algorithm is not an "arbitrary sparse data set," rather, the algorithm (and, in particular, the "predicate" (test_pred)) picks the probe data that it requires to facilitate generation of the exact block structure.

The goal of the inventive method is take an arbitrary sparse data set and to generate an IP address block map that is an approximation of that arbitrary sparse data set. In one embodiment (e.g., claim 1), this is achieved by taking sparse data starting points and upper bound stopping points and subdividing the upper bound stopping points as little as possible to give blocks that are still consistent with the sample. Anderson, in contrast, explore the space to find precise IP

addresses (typically edges) and the algorithm there then compares those IP addresses through the predicate function to generate an exact block map.

The Anderson technique is more complex and costly because it requires the probing to actual IP addresses that form the inputs to the predicate function. More to the point, there is no disclosure or suggestion in Anderson to use the actual algorithm there in the manner now specifically recited in the amended claims. Thus, for example, each of independent claims 1 and 11 now require a method of extending an arbitrary sparse set of IP blocks having associated mapping data into an IP address block map that is consistent with the arbitrary sparse set of IP blocks having associated mapping data. In each such case, the claim preamble provides a limitation on the claim. These amendments distinguish the claim over Anderson's predicate function, which as described above merely attempts to create an "exact" block map with inputs that are not an arbitrary sparse set of IP blocks having associated mapping data.

Moreover, because the Anderson technique is not concerned with and does not use sparse data, the reference cannot and does not disclose or suggest at least the following step (from amended claim 1):

"using the set of upper bound blocks to partition a space of IP addresses into territories, wherein each territory represents a largest set of IP addresses to which a piece of mapping data may be extended, and wherein a piece of mapping data may be extended to the territory only if (a) the territory includes an IP block from the arbitrary sparse set of IP blocks that has that piece of mapping data and (b) the unanimity criterion applies to all of the IP blocks from the arbitrary sparse set that are included in the territory." This feature ensures that the inventive algorithm does not over-extend itself given the partial or "sparse" nature of the data that is used as the input to the routine.

Respectfully, the rejection of claim 10 under § 102(e) is traversed. Anticipation can only be established if the limitations of the claim are met exactly in the cited reference. Independent claim 10 is patentable because the Anderson algorithm does not involve determining whether routing decisions for a given set of name servers in a given IP address block are sufficiently in agreement or using that information to extend the routing decisions for at least one new name server.

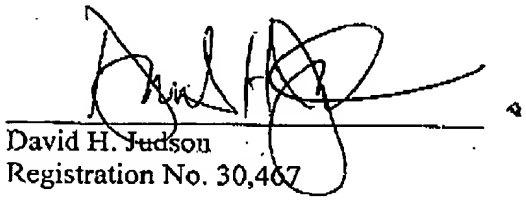
The independent claims are now amended are deemed to describe patentable subject matter. Dependent claims 2-9 are deemed patentable for the reasons advanced with respect to amended claim 1.

An Information Disclosure Statement is provided, together with a $180.00 submission fee.

A Change of Correspondence Address is also submitted herewith.

A Notice of Allowance is respectfully requested.

Respectfully submitted,



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